SUPREME COURT, U. S.

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No. 547

In the

Supreme Court of the United States

OCTOBER TERM, A.D. 1969

CARNATION COMPANY,

Petitioner,

vs.

GENERAL FOODS CORPORATION, INC.,

Respondent.

PETITION FOR WRIT OF CERTIORARI TO THE UNITED STATES COURT OF APPEALS FOR THE SEVENTH CIRCUIT

RICHARD R. TREXLER
RICHARD BUSHNELL
OLSON, TREXLER, WOLTERS & BUSHNELL
141 West Jackson Boulevard
Chicago, Illinois 60604
Attorneys for Petitioner

The Scheffer Press, Inc.—ANdover 3-6850

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TO THE HONORABLE THE CHIEF JUSTICE AND ASSOCIATE JUSTICES OF THE SUPREME COURT OF THE UNITED STATES:

Carnation Company prays that a writ of certiorari issue to review the decision of the United States Court of Appeals for the Seventh Circuit in the case entitled *"General Foods Corporation* v. *Carnation Company,"* and relating to Appeal No. 17263.

OPINION OF THE COURT BELOW

The interlocutory order of the District Court for the Northern District of Illinois, Eastern Division appealed from was entered without opinion. The opinion of the Court of Appeals for the Seventh Circuit is reported at 162 USPQ 129 and is included herein as Appendix I.

JURISDICTION

The decision of the Court of Appeals for the Seventh Circuit was made and entered on June 11, 1969. Jurisdiction of this Court is invoked under 28 U.S.C. §1254(1) and §2101(c).

QUESTIONS PRESENTED

This is a patent infringement suit in which the patent involved contains eleven method claims and one hybrid product by process claim. The legal question presented is whether this patent may be asserted against a non-resident defendant who admittedly has not carried out and has no facilities for carrying out the accused method within the Judicial District in which the suit is brought. Your petitioner, Carnation Company, is seeking to dismiss or to secure a change of venue on the ground that no acts of infringement have been or could have been carried out within the Northern District of Illinois; and specifically the questions presented are:

1. Whether for venue purposes in an infringement action against a non-resident defendant, sales of the accused product within a Judicial District constitute "acts of infringement" of a hybrid product by process claim (claim 12) which calls for the product being produced "in accordance with the method of claim 1" (One of the method claims of the same patent).

2. Whether the special venue provisions of 28 U.S.C. §1400(b) must be satisfied for each separate claim contained within a given patent document.

THE STATUTES INVOLVED

The sections of the pertinent patent and venue statutes are:

Title 28 U.S. C. §1400(b) which provides:

> "Any civil action for patent infringement may be brought in the Judicial District where the defendant resides, or where the defendant has committed acts of infringement and has a regular and established place of business."

Title 28 U.S.C. §1404(a) which provides:

> "For the convenience of parties and witnesses, in the interest of justice, a district court may transfer any civil action to any other district or division where it might have been brought."

Title 28 U.S.C. §1406(a) which provides:

> "The district court of a district in which is filed a case laying venue in the wrong division or district or district shall dismiss, or if it be in the interest of justice, transfer such case to any district or division in which it could have been brought."

Title 35 U.S.C. §101 which provides:

> "Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title."

Title 35 U.S.C. §112 which provides:

> "The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise,

and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same, and shall set forth the best mode contemplated by the inventor of carrying out his invention.

"The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

"An element in a claim for a combination may be expressed as a means or step for performing a specified function without the recital of structure, material, or acts in support thereof, and such claim shall be construed to cover the corresponding structure, material, or acts described in the specification and equivalents thereof."

Title 35 U.S.C. §271(a) which provides:

"Except as otherwise provided in this title, whoever without authority makes, uses or sells any patented invention, within the United States during the term of the patent therefor, infringes the patent."

STATEMENT OF THE CASE

This action was filed by General Foods Corporation in the District Court for the Northern District of Illinois, Eastern Division, on April 2, 1968 and charged Carnation Company, your petitioner, with infringement of United States Patent No. 3,119,691. The patent (Appendix II) pertains to an alleged invention in a dry farinaceous dog food which plaintiff, General Foods, asserts is embodied in its products sold under the trademark "Gravy Train" and in Carnation's products sold under the trademark "Friskies Sauce Cubes."

The patent contains claims 1 through 11 which are expressly limited to "The method of preparing a par-

ticulate dry animal food"; and claim 12 which recites a product, but is expressly limited to "said product being produced in accordance with the method of claim 1."*

There is no dispute over the fact that Caranation has never carried out and has no facilities for carrying out the accused method within the Northern District of Illinois. Its product, Friskies Sauce Cubes, was developed by Carnation in its pilot plant and laboratory at Van Nuys, Los Angeles County, California, and has been commercially produced only at plants in Oakland, California and Jefferson, Wisconsin.

Carnation in the courts below sought a change of venue to the Central District of California where its home offices and research personnel who developed the accused Friskies Sauce Cubes are located. To this end, Carnation filed a Declaratory Judgment action in the Central District of California on June 7, 1968 which placed all of the claims of patent No. 3,119,691 in issue. On June 12, 1968, five days later, Carnation filed a motion to dismiss the present action for lack of venue under 28 U.S.C. §1400(b); and/or to transfer the cause to the United States District Court for the Central District of California under either 28 U.S.C. §1404(a) or §1406(a).

General Foods then moved on June 28, 1968 to enjoin Carnation from proceeding with the Declaratory Judgment action in California.

On September 23, 1968, the District Judge in the Northern District of Illinois, without opinion, issued separate orders (1) denying Carnation's motions to dismiss

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* The only other claim in the patent is claim 13 which has been held invalid in *General Foods Corporation* v. *Perk Foods Co.*, (D.C. N.D. Ill., 283 F Supp. 100).

for improper venue and/or to transfer under §1406(a); (2) denying Carnation's motion to transfer under §1404 (a); and (3) granting General Foods' motion to enjoin Carnation from prosecuting the California case.

The Court of Appeals entered its decision affirming the orders below on June 11, 1969.

REASONS FOR GRANTING THE WRIT

In its decision below, the Court of Appeals expressly acknowledged that it was deciding for the first time two separate questions of law. Important consequences flow from the decision on these questions. These consequences are of substantial interest to the public, and to patentees in general, as well as to the present parties, and thus the questions should be reviewed by this Court.

ARGUMENT

I. Are Mere Sales Sufficient Acts of Infringement with Respect to a Hybrid Product by Process Claim

The first specific question presented herein is whether sales of an accused product constitue "Acts of infringement" of a hybrid product by process claim such as claim 12 of the patent in suit. Determination of this question involves the underlying question of identifying the "patented invention" covered by a product by process claim. Title 35 U.S.C. §101 establishes statutory classes of invention including "process, machine, manufacture or composition of matter, or any new and useful improvement thereof." Title 35 U.S.C. §271(a) defines an act of infringement as the making, using or selling of "any patented invention" within the United States; and 28 U.S.C. §1400(b) is controlling on the question of venue *Hoffman* v. *Blaski* (C.A. 7, 1958) 260 F 2d. 317, 363 U.S. 335, 4 L Ed. 2d. 1254.

It is well settled that the patented invention is defined by the claims *Universal Oil Products Co.* v. *Globe Oil & Refining Co.* (C.A. 7, 1943) 137 F 2d 3, affirmed 64 S. Ct. 1110, 322 U.S. 471, 88 L. Ed. 1399; *Harvey Hubbel, Inc.* v. *General Electric Co.* (C.A. 2, 1920) 267 F 564.

Since it is also well established that the mere sale of an article produced in accordance with a method covered by an ordinary method or process claim does not infringe such a claim *Merrill* v. *Yeomans* (1877) 94 U.S. 568; *Foster Snell, Inc.* v. *Potters et al.* (C.A. 2, 1937) 88 F 2d. 611; *Metro-Goldwyn-Mayer Corporation* v. *Sear* (C.A. 9, 1939) 104 F 2d. 892, it becomes essential

to determine the exact nature of the "patented invention" covered by a hybrid product by process claim and whether a different rule is to be applied to it. What is the "patented invention?" Is it a product, a process or is it both a product *and* a process? The Court below observed that no prior decision was directly in point although it has been settled that a product must be made in accordance with a specified process in order to infringe a product by process claim. *Cochrane* v. *Badische Anilin and Soda Fabrik* (1884) 111 U.S. 293, 28 L. Ed. 433.

There appear to be two possible conclusions. The first conclusion, which was adopted by the Court of Appeals for the Seventh Circuit, is that a hybrid product by process claim is, for infringement purposes, a product claim. The second conclusion which is urged by your petitioner is that a product by process claim which, as in the present case, is dominated by the recitations of the method, is both a product claim and a process claim, so that the essential acts of infringement must include the practice of the process.

The consequences flowing from two different conclusions vary widely and are of considerable public interest. For example, the holding that the claim is both a product and a process claim will result in increasing the effectiveness of the limiting venue provisions of 28 U.S.C. § 1400(b). In other words, patentees having hybrid product by process claims will be required to bring infringement actions against non-resident defendants in Judicial Districts where such defendants have carried out the accused process. Abuses engendered by more extensive venue as referred to by this Court in *Stonite Products Co.* v. *Lloyd Co.* (1942), 315 U.S. 561; 86 L. Ed. 1026 will thus be minimized, as was intended by Congress in the

passing of § 1400(b). Patentees with product by process claims will be precluded from bringing an action against essentially innocent parties such as merchants selling a product who have no knowledge concerning the accused method, and little means, if any, for acquiring such knowledge.

On the other hand, the holding that a hybrid product by process claim is after all only a product claim which can be infringed by the mere act of selling the article, will permit circumvention of the intent of § 1400(b) that an infringement action shall be brought in the location where the real acts complained of take place. Certainly it is against the public interest that a retailer such as a grocery store selling dog food shall be subject to suit in respect to a product by process claim since he is without knowledge with respect to the accused method and is in a poor position to defend. Also, contrary to the intent of the limited venue statute § 1400(b), a manufacturer of a nationally distributed product such as Carnation Company, shall be subject to suit in virtually every Judicial District in the country, even though the accused method is carried out by personnel familiar with the process only in one or two locations. As stated in *Ruth* v. *Eagle-Picher Company,* (C.A. 10, 1955) 225 F. 2d 572, 577:

> "A patent infringement action involves a peculiar combination of science or technology and law. . . . Practicality and convenience are best served when the case is prosecuted where alleged acts of infringement occurred and the defendant has a regular and established place of business."

The holding adopted by the Court below could result in infringement suits based on process dominated prod-

uct claims being brought against sellers of the product in the United States, even though the product is manufactured under the process in some foreign country. Thus, even where the product per se is old, the sellers of such product may be subjected to suit by any patentee of a new method if only the patentee can persuade the Patent Office to allow at least one claim couched in terms of product by process.

If it is held that hybrid product-process claims can only be infringed by one carrying out the process, patentees will not find it profitable to urge such claims on the Patent Office solely for venue purposes. The burden on the Patent Office will be reduced and the public will be faced less often with the ambiguities inherent in hybrid product by process claims.

II. Should Venue Be Determined Separately For Separate Claims In A Patent

If the decision is reached that a hybrid product by process claim can be infringed by the mere sale of the product, it then becomes necessary herein to consider the second question as to whether the venue provisions of 28 U.S.C. § 1400(b) must be satisfied for each separate claim in a single patent document. Again the Court below acknowledged that there is no prior decision directly in point.

It has often been held that each claim in a patent document must be separately considered both as to validity and infringement. *Leeds & Catlin Co.* v. *Victor Talking Machine Co.*, 213 U.S. 301, 319; 53 L. Ed. 805; *Sanitary District of Chicago* v. *Activated Sludge, Inc. et al.*, (C.A. 7, 1957) 90 F. 2d. 727; *Wire Tie Machine Co. et al* v. *Pacific Box Corporation, Limited et al*, (C.A. 9, 1939) 102 F. 2d. 543. In other words, each claim is directed to its

own "patented invention". Should there be a different rule when considering venue? No court has heretofore directly considered this question. It is the Carnation Company's position that each claim must be separately considered not only for infringement and validity, but also with respect to the question of venue, in order to give effect to the provisions of § 1400(b).

The Court below observed that a disadvantage of such separate determination of venue might be that a suit with respect to article claims could be brought in one district, while a suit on the method claims is pending in another district. Everyone agrees that such a multiplicity of suits would be undesirable. However, the solution is not to disregard the requirements of § 1400(b). To the contrary, the solution is to transfer one of the cases to the Judicial District in which venue for all of the claims is proper, and this is what the Carnation Company seeks to do in the present situation.

As has been discussed above, the mere sale of an article does not infringe a method patent. Thus, in the event a patentee has one patent containing article claims and a separate patent document containing claims to the method for making such article, venue with respect to all of the claims in both patents would only lie under § 1400(b) at the location where the method was performed and thus the article was made. Should the result be different merely because of some Patent Office rule or practice in the particular art involved, both the article and method claims are in the same patent document rather than in two separate patent documents. In other words, should the venue in a patent case be determined by the vagaries of the classification of claims in the Patent Office which frequently results in the allowance of article and method claims in the same patent document, and also frequently

requires applicants to divide their claims and obtain the article claims in one patent and the method claims in a separate patent.

If it is held that a suit on method claims can automatically be joined with a suit on article claims in the same patent, even if venue for the method claims would otherwise be improper, both the defendant in the present suit and the public at large will be subject to burdens contrary to the intent of Congress in establishing the special venue requirements of § 1400(b). As previously indicated, it is the intent of this section of the satute that infringement suits be brought where the acts complained of took place, and where knowledgeable witnesses are located. This intent will be circumvented if a manufacturer or retailer of a product made by a patented process is subject to suit wherever he may have a place of business and the product is sold rather than where it is made.

CONCLUSION

For the reasons set forth above, it is respectfully submitted that this petition for a writ of certiorari should be granted, and the foregoing questions determined by this Court, for the benefit of the parties herein and for the public

RICHARD R. TREXLER
RICHARD BUSHNELL
OLSON, TREXLER, WOLTERS & BUSHNELL
141 West Jackson Boulevard
Chicago, Illinois 60604
Attorneys for Petitioner.

APPENDIX I

IN THE
UNITED STATES COURT OF APPEALS
FOR THE SEVENTH CIRCUIT

SEPTEMBER TERM, 1968, APRIL SESSION, 1969

No. 17263
GENERAL FOODS CORPORATION,
Plaintiff-Appellee,
v.
CARNATION COMPANY,
Defendant-Appellant.

Appeal from the United States District Court for the Northern District of Illinois, Eastern Division.

JUNE 11, 1969

Before MAJOR, *Senior Circuit Judge,* and SWYGERT and KERNER, *Circuit Judges.*

MAJOR, *Senior Circuit Judge.* On April 2, 1968, General Foods Corporation filed in the Northern District of Illinois its complaint charging Carnation Company with infringement of United States Patent No. 3,119,691, which described and claimed plaintiff's animal food marketed under the name, "Gravy Train."

On June 7, 1968, Carnation filed in the Central District of California an action for declaratory judgment, invoking the identical parties and issues as those in the instant case. One June 12, 1968, Carnation filed in the instant action a motion to dismiss for lack of venue under 28 U.S.C.A. Sec. 1400 (b), and/or to transfer the cause to the California District Court under either 28 U.S.C.A.

Sec. 1404 (a) or Sec. 1406 (a). On June 25, 1968, General Foods moved to enjoin Carnation from proceeding with the declaratory judgment action filed in California.

On September 23, 1968, the District Court denied Carnation's motion to dismiss for improper venue and to transfer, and granted General Foods' motion to enjoin Caranation from proceeding with its California action. From this judgment Carnation appeals.

In the present posture of the case, the facts as alleged in the pleadings, together with certain supporting documents and affidavits, are not in dispute. Briefly, both General Foods and Carnation are corporations of the State of Delaware, the former with its principal offices in White Plains, New York, and the latter with its principal offices in Los Angeles, California. The patent pertains to the production of a dry, farinaceous dog food which General Foods alleges is embodied in its product sold under the trademark, "Gravy Train." Carnation's product alleged to infringe is sold under the trademark, "Friskies Sauce Cubes." The first eleven claims of the patent are limited to "the method of preparing a particular dry animal food." Claims 12 and 13[1], the only other claims in the patent, describe the product. Claim 12 concludes with the statement, "said product being produced in accordance with the method of claim 1." Carnation has never carried out the accused method of making its cubes within the Northern District of Illinois. They were developed in its plant and laboratory at Van Nuys, California, and were thereafter commercially produced only at plants in Oakland, California, and Jefferson, Wisconsin. Carnation maintains a branch sales office in the Northern District, from which it has sold its "Friskies Sauce Cubes" alleged to infringe claim 12.

This skeleton statement of the facts is sufficient to bring into focus the questions of law here argued insofar as

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[1] Claim 13 has been held invalid in *General Foods Corp.* v. *Perk Foods Co.*, 283 F. Supp. 100, and is not here involved.

they pertain to the issue of venue. (Other issues will be subsequently discussed.)

Carnation contends that product claim 12, because it refers to claim 1 as the method by which the product is produced, can only be infringed at the place where the method is performed, that is, either Oakland, California, or Jefferson, Wisconsin. It further contends that even though venue was properly laid as to claim 12, the court erred in retaining jurisdiction of charges of infringement of the method claims unless venue requirements were satisfied for each such claim.

It is no longer open to question but that venue in patent infringement actions is governed exclusively in 28 U.S.C.A. Sec. 1400(b). *Fourco Glass Co.* v. *Transmirra Products Corp. et al.*, 353 U.S. 222. That section so far as pertinent provides:

> "(b) Any civil action for patent infringement may be brought in the judicial court * * where the defendant has committed acts of infringement and has a regular and established place of business."

Thus, the sole question determinative of venue is whether Carnation's admitted sales of the accused product in the Northern District of Illinois were "acts of infringement" in that district.

Strange as it may seem, no case is cited and we find none squarely in point. As we understand Carnation's argument, it rests on the theory that product claim 12 lost its status as such by its reference to claim 1 as a method by which its product was produced. We think this is a dubious argument. It appears to be common practice in a patent claim to incorporate other claims by reference.[2] We think it would have been proper if claim 12, in describing its product, had incorporated

[2] For instance, in the patent in suit method claim 8 refers to claim 7; method claim 9 refers to claim 8; method claim 10 refers to claim 9.

therein claim 1, showing the method by which it was produced. Its reference to claim 1 for that purpose did not alter its status as a product claim. This court in *National Carbon Co., Inc.* v. *Western Shade Cloth Co.*, 93 F. 2d 94, made the pertinent observation (page 96):

> "A manufactured article may be claimed as a new product, but this claim of the product must set forth its essential characteristics and qualities or define it as the product resulting from a described process and, if the character of the product depends upon the manner in which it has been produced, ordinarily, it should be claimed only as the thing produced by the specific process."

A type of claim such as 12 has long been recognized and granted by the Patent Office as "a product-by-process" claim. The Court of Customs and Patent Appeals has had occasion to consider this type of claim.

In In Application of Douglas J. Bridgeford, 357 F. 2d 679, pertinent to the point, the court stated (page 682):

> "The rationale stated in the above decisions which permit the product-by-process type claim in ex parte prosecution before the Patent Office is clear: the right to a patent on an invention is not to be denied because of the limitations of the English language, and, in a proper case, a product may be defined by the process of making it. However, the invention so defined is a *product* and not a *process.*"

The same court In Application of Arthur Sinclair Taylor, 360 F. 2d 232, reaffirmed the principle announced in Bridgeford in the following language (page 234):

> "In In re Bridgeport, 357 F. 2d 679, 53 CCPA—a 'product by process' claim was held to define a product. We there agreed with the reasoning of the Board of Appeals that the invention defined by such a claim is a *product* and not a *process.*"

Carnation cites numerous cases in support of its theory that hybrid product-method claim 12 cannot be infringed

in this judicial District because the method in claim 1 is not practiced in the District. The two cases most relied upon are *Downes* v. *Teter-Heany Development Co.*, 150 Fed. 122, and *American Graphophone Co.* v. *Gimbel Bros.*, 234 Fed. 361. Carnation on brief quotes from the latter case (page 369):

> "A case directly in point is *Downes* v. *Teter-Heany Development Co.*, 150 Fed. 122, 80 C.C.A. 76, decided by the Circuit Court of Appeals for the Third Circuit, in which it was distinctly held that where a patent includes claims for a process and also for the product of such process, the latter are to be construed in connection with, and are limited in scope by, the former, and are not infringed unless the process claims are also infringed."

If this is a correct statement of law, which we assume, it is not discernible how it bears any relation to the issue of venue. It merely stands for the proposition that proof of infringement of the product claim will require proof that it was made in accordance with the method claim. In our view, it does not follow, as Carnation argues, that because the method by which the product was produced was practiced in another jurisdiction that the jurisdiction in which it was sold is lacking in venue.

This brings us to Carnation's contention that even though venue was properly laid as to claim 12, the court erred in retaining jurisdiction of method claims 1 through 11, as no proper venue was laid as to those claims. Again, no case has been called to our attention which has decided this precise question. Carnation, citing cases for the proposition that each claim is a patent is a separate grant and must be separately considered both as to validity and infringement, reasons that it follows that venue must also be determined separately with respect to each claim. It argues that such a result is required by the express provisions of Sec. 1400 (b). It is true, as previously noted, that an action for patent infringement may be brought in the District where "the defendant has com-

mitted acts of infringement." "Acts of infringement" refers to the patent on which the action is brought but makes no requirement as to "acts of infringement" on each of the patent claims.

This distinction was recognized in *Lyon* v. *General Motors Corp.*, 200 F. Supp. 89, relied upon by Carnation. In that case the action was brought in the Northern District of Illinois upon eight patents, alleging infringement. One of the patents was limited entirely to method claims, and it was shown on motion to dismiss that the patent with the method claims had not been infringed in the District. The court held that under 28 U.S.C.A. Sec. 1400 (b), venue was improperly laid as to the patent with its method claims, and stated (page 90):

> "The sale of the product of the infringing process or method would not constitute an infringement of the method patent within this district. [Citing cases.]"

In contrast, the action here is on a single patent with a product and process claims, all relating to the same subject matter and all stemming from the same specification required by 35 U.S.C.A. Sec. 112. To hold as Carnation would have us do would create an intolerable situation. It would mean that an action for patent infringement in a situation such as we have here would be tried piecemeal, some claims in one jurisdiction and others in another. Confusion would be engendered and a multiplicity of suits invited.

We hold that venue was properly laid as to claim 12, and that the court thereby acquired jurisdiction of all the claims relied upon by General Foods. See *Hurn et al.* v. *Oursler et al.*, 289 U.S. 238, 246, and *Kalo Inoculant Co.* v. *Funk Bros. Seed Co.*, 161 F. 2d 981, 991 (CA-7).

Carnation contends that the court erred in denying its motion to transfer the case to the Central District of California under 28 U.S.C.A. Sec. 1404 (a) or Sec. 1406 (a). The latter section provides for the transfer of a case where venue has been laid in the wrong jurisdiction. In

view of our holding that venue was properly laid in the Northern District of Illinois, that section is without application.

Section 1404 (a) provides:

> "For the convenience of parties and witnesses, in the interest of justice, a district court may transfer any civil action to any other district or division where it might have been brought."

In support of its motion to transfer, on the ground that it would be for the convenience of parties and witnesses and in the interest of justice, Carnation presented an affidavit of its Senior Vice President designating a number of persons residing in the California area, including several of its employees, who would or might be called as witnesses in a trial of the case. The affidavit asserted that the company would be greatly inconvenienced and its business hampered and interrupted to a much greater extent if such witnesses were called to appear at a trial in Chicago rather than in Los Angeles.

General Foods submitted a counter-affidavit of its Research and Product Development Manager which named a number of witnesses expected to be called at the trial and who resided in the Chicago area. Included in the list were several witnesses residing at Battle Creek, Michigan, approximately 100 miles from Chicago, and witnesses residing at Kankakee, Illinois, 40 miles from Chicago, where its product, alleged to be infringed, is manufactured. The counter-affidavit also asserted that Benjamin R. Harris, its principal witness in *General Foods Corp.* v. *Perk Foods Co.*, 283 F. Supp. 100, who would be a witness in the instant case, resided in Chicago.

In view of our limited scope of review, this sketchy outline of the facts as they pertain to this issue, as well as the citation of a few of the many cases called to our attention, will suffice. In *B. Heller & Co.* v. *Perry*, 201 F. 2d 525, 527, this court stated:

"The statute confers upon the District Court a wide discretion; unless we can say that discretion was abused, we may not interfere. [Citing cases.] * *

"* * As the court said in *Nicol* v. *Koscinski*, U.S. District Judge, 6 Cir., 188 F. 2d 537, 538: 'Determination as to the greater convenience or inconvenience must rest within the sound judicial discretion of the district judge to whom the petition for change of venue is addresse * *.'"

In *Chemetron Corp.* v. *Perry*, 295 F. 2d 703, 704, we stated:

"Here is a clear recognition of the well-established principle that we are not privileged to substitute our judgment for that of the district court upon the propriety of the transfer of a case. If relief is to be granted to petitioner it must appear from the record that respondent has been guilty of a clear abuse of discretion in ordering the transfer."

To the same effect see decisions of this court in *Chicago, Rock Island and Pacific Railroad Co.* v. *Igoe*, 220 F. 2d 299, 304, and *Dairy Industries Supply Ass'n* v. *LaBuy* 207 F. 2d 554, 557-8.

In view of these controlling authorities, we cannot hold that the court abused its broad discretion in denying Carnation's motion to transfer the case to the California jurisdiction.

Carnation's contention that the court erred in enjoining it from proceeding with its declaratory judgment action in the California jurisdiction requires little consideration. It appears that its contention is based on the premise that the court erred in finding venue properly laid as to claim 12, and in retaining jurisdiction of that claim as well as the method claims 1 through 11. Carnation on brief states, "If either of these decisions is wrong the granting of the injunction is wrong."

We have sustained the court on both of these points, which on Carnation's theory would appear to dispose of the injunction matter. In any event, our scope of review, as on the transfer issue, is limited to the question as to whether the trial court abused its discretion. See decisions of this court in *Minnesota Mining and Manufacturing Co.* v. *Polychrome Corp. et al.*, 267 F. 2d 772, 775; *Martin* v. *Graybar Electric Co.*, 266 F. 2d 202, 204; *Milwaukee Gas Specialty Co. v. Mercoid Corp.*, 104 F. 2d 589, 592.

We hold there was no abuse of discretion in the court's granting of the injunction.

The judgment appealed from is

AFFIRMED.

APPENDIX II

United States Patent Office

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NOVEL FARINACEOUS ANIMAL FOOD

Varnum D. Ludington, Greenwich, Conn., Robert E. Schara, Battle Creek, Mich., and Raymond E. Mohlie, Scituate, Mass., assignors to General Foods Corporation, White Plains, N.Y., a corporation of Delaware

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13 Claims. (Cl. 99—2)

This invention relates to a novel food for animals and to a method of making the same. More specifically, it relates to a novel dog food particularly characterized by its ready hydratability, its retention of particle identity during and after hydration, and by its ability to give a gravy-containing mixture on moistening.

As is well known to those skilled in the art, animal foods, and particularly dog foods, are commonly prepared for the consumer in two forms; the meal type particularly characterized by its dry more-or-less cereal-like texture and by its low moisture content, typically about 10%; and the canned type particularly characterized by its more-or-less meat-like texture and by its high-moisture content, typically as high as 75%.

Although the canned type of dog food generally has a very high degree of palatability, i.e., receptivity by dogs, it is characterized by poor storage characteristics and comparatively low nutritional value. On the other hand, the meal type animal food, while eminently superior with respect to these characteristics, is commonly found to possess low palatability. In many cases, the animal will not eat it in dry form, and it becomes necessary to add liquids thereto.

Although prior art meal type foods may be readily enough moistened, they commonly become mushy or doughy and stick to the plate. A food which possesses these characteristics is not palatable to animals, and they may not consume enough to provide the proper nutritional intake. Thus, because of the undesirable physical properties of such foods, their superior nutritional features are not made available to the animal. Attempts have been made to raise the palatability as by incorporating a gravy-forming ingredient into the mixture, but these attempts have been unsuccesful. It has been found that addition of water to these products still gives a doughy mixture which is not palatable to animals.

It is an object of this invention to prepare a novel type animal food which can form a gravy-containing mixture on addition of water, and which is characterized by a very high degree of palatability, by a high nutritional content, by ready hydratability, and by retention of particulate character on hydration.

In accordance with certain aspects of this invention, a hydratable animal food particularly characterized by its ability to form a gravy-containing mixture on addition of liquid may be prepared by the process comprising gelatinizing and expanding a body of particles of a farinaceous animal food, coating said particles of animal food with a fat, controlling the temperature of said particles and said fat during said coating whereby said fat forms a coating on the surface of said particles, and contacting said fat with a dry gravy-forming agent capable of rapid dispersion and increase in viscosity upon addition of said liquid thereto, thereby producing a dry farinaceous fat-containing animal food capable of forming a gravy-containing mixture on addition of water, which mixture does not prematurely turn soggy or mushy.

In accordance with certain of the more specific aspects of this invention, a hydratable animal food characterized by gravy-forming ability, high water adsorptivity, rapid rate of absorption, and the ability of the product to retain its individual particulate shape on wetting, may be prepared by the process which comprises forming a farinaceous mixture, including a farinaceous starch-containing grain material and proteinaceous ingredients to balance said mixture nutritionally, the level of the farinaceous and proteinaceous ingredients constituting a substantial majority of the ingredients of the farinaceous mixture; causing the farinaceous mixture to be transformed into an expanded shaped mass having a porous outer surface and a plurality of holes distributed throughout by moistening the farinaceous mixture, gelatinizing the farinaceous mixture by heating it to cause starch granules in the mix to swell under the influence of increased moisture and heat, and completing gelatinization by extruding it from a confined zone of high pressure wherein it is at a temperature substantially above 212° F. through an extrusion orifice against the back pressure thereof to a zone of low pressure whereby the product expands to a lower density product and its moisture content is reduced; then further drying the lower density product to a stable moisture content and coating the dried product with a liquefied fat and a gravy-forming agent; the relative temperature of the fat and the fat-contacted product is so regulated that the fat is fluid prior to its formation of a coating and solidifies after it contacts the product, but only slightly penetrates the porous outer surface thereof, the interior of the product being thereby rendered free of fat coating.

The gravy-forming agent should be of a character, like those described subsequently in this application, such that when it is mixed with aqueous liquid, the mixture rapidly thickens and increases in viscosity, whereby the gravy forming agent, through its location on the surface of the product will cause the aqueous liquid to be absorbed by the product at a controlled rate such that the porous expanded animal food does not prematurely lose its desired crunchy texture. Thus, by rendering the gravy-making or thickening ingredients readily available to produce this effect, the thickened gravy produced upon liquid addition coats the surface of the product in such a manner as achieves this controlled rehydration. By having the fat coating located on the surface with the dry gravy-forming agent, the fat contributes to control of the hydration in providing the desired crunchy texture and also serves as an effective carrier for the dry gravy-making ingredients, making them available for dispersion into the liquid to produce a thickened gravy which is ultimately to be absorbed and provide the hydrated animal food.

The farinaceous animal food which may be treated in accordance with the instant invention to yield a gravy-forming product may be formulated according to various techniques. Preferably it may be formed from a farinaceous mixture containing a farinaceous ingredient, and a proteinaceous ingredient, and preferably also flavor ingredients, coloring ingredients, fibrous ingredients, and nutritive supplements including vitamins.

The farinaceous mixture will include a primary farinaceous ingredient which may be any of the more common grains, such as corn, wheat, barley, oats, etc., and their derivatives, including, e.g., corn meal, red dog flour, wheat germ, etc. A preferred farinaceous ingredient may include hominy. Commonly this ingredient will be present in amount of 30%–65% of the total mass.

In the preferred embodiment, the farinaceous mixture may also include one or more proteinaceous ingredients of vegetable, animal or fish origin, typically soy bean meal, meat meal, or fish scrap. This ingredient, preferably present in amount of 25%–40% of the total mixture, will provide the bulk of the desired protein content in the final product. In the preferred embodiment, the ratio of farinaceous ingredient to proteinaceous ingredient may be 2.5–0.8 say 1:1. The farinaceous ingredient and the proteinaceous ingredient together may comprise 55%–95% of the total mixture.

It will be apparent that the proteinaceous ingredient will preferably be selected to provide both the necessary level or amount of protein and also the necessary composition. Preferably several proteinaceous ingredients will be present. More specifically, these ingredients will be selected to be complementary to each other and to the farinaceous ingredient whereby the final mixture is balanced with respect to desired amino acids. For example, the protein of corn is low in tryptophane, an essential amino acid, whereas fish meal is high in this component; similarly wheat is low in lycine whereas meat meal will provide this ingredient. Accordingly mixtures of these complementary ingredients will preferably be used to provide the desired balance.

Other preferred ingredients in the product (typically present in total amount of 0.25%–6% or 7%) may include: desired flavor ingredients typified by fish scrap (when this material is not used as the prime source of protein) or salt; coloring ingredients including iron oxide, etc.; fibrous ingredients typified by beet pulp; and desired vitamins.

A typical specific embodiment of the product may be prepared from the following farinaceous mixture.

Ingredient:

	Percent
Farinaceous ingredient—	
Wheat flour middlings	12
Corn germ meal	10
Hominy feed	40
Proteinaceous ingredient—	
Soy bean meal	15
Meat meal	15
Wheat germ meal	3
Dried milk	0.9
Fibrous ingredient—Beet pulp	1.8
Flavor ingredient—	
Fish scrap	0.7
Salt	0.5
Vitamins, minerals	q.s.

The farinaceous mixture may typically have a moisture content of about 9%–10%. In accordance with this invention, the moisture content of the mixture will be raised preferably to 28%–31% and the starch in the mixture may be partially gelatinized. The moisture content may be raised by adding cold water, hot water, or steam prior to completion of the partial gelatinization step. Partial gelatinization may be effected by addition of appropriate amounts of water, including steam as noted, and by maintaining the mixture at 200° F.–220° F., typically 212° F. at about atmospheric pressure for about 30–120 seconds.

In the preferred embodiment, this partial gelatinization of the charge may be effected in a steamer and the increase in water content from 9%–10% up to 28%–31% may be effected by the water which is added during the steaming (as condensate) as well as by the water which may have been added immediately prior to the gelatinizing steps; typically the final moisture content of the partially gelatinized product may have been derived from equal parts of native water, condensate, and added water.

Partial gelatinization may be effected in a Beale tube which is typical of several types of closed paddle mixers, in which the material may be subjected to contact with both indirect and direct steam. During the partial gelatinization, whether it be conducted in a Beale tube or in a steamer such as the FMC steamer, or in any other desired equipment, the starch granules within the mixture will swell under the influence of the increased moisture and heat. The course of the partial gelatinization may be followed by observing the individual starch granules when illuminated by polarized light and viewed through a microscope. As the reaction proceeds, the granules will swell and it will be noted that the so-called Maltese-cross configurations within the granules will substantially entirely disappear. However, in the preferred embodiment there will be very few, if any, of the starch cells which will have ruptured.

Further treating of the partially gelatinized product includes mechanical working of the material and expanding. Preferably and commonly this is effected in an extrusion operation. During mechanical working, the partially gelatinized, swollen, unruptured particles are subjected to a high degree of mechanical work and shearing. Steam may be employed to control the temperature. The conditions within this high pressure extrusion operation may be such that the temperature is well above 212° F.; the pressure may be very high.

The gelatinization may be completed under the influence of the pressure and heat and high pressure steam may be injected into the mixture. The product is then extruded from the apparatus through a die of desired shape. Because of the conditions prevailing in the process, including the high temperatures and pressures resulting wholly or in part from the mechanical work and in part from the injected high pressure steam, considerable expansion of the product may occur during the extrusion step as the material passes through the discharge orifice.

The degree of expansion of the product may be controlled by regulating the pressure drop across the orifice; preferably this will be done by regulating the back pressure which in turn may be regulated by the throughput and/or the size and number of holes in the orifice; and the moisture content of the material. During the expansion or extrusion, the moisture content of the material may be reduced typically by 2%–5% to a level of about 23%–29%.

Expansion from the higher pressure behind the orifice to the lower pressure on the discharge side of the orifice permits attainment of the expanded product which is characterized by its comparatively low density and by the presence of a plurality of air holes or pockets uniformly distributed throughout the mass.

The so-extruded or expanded material may be subdivided or cut to desired size or form. If it be desired to produce a relatively smooth-surfaced, highly regular particle, or one which is characterized by ragged and non-uniform appearance, or variations in between, this may readily be effected by varying the conditions of cut. For example, a sharp, closely fitting knife will produce regular particles, while a dull knife spaced from the orifice will tend to tear the particles and give a ragged or irregular product.

The particles of material may be dried from its moisture content of 23%–29% down to a stable moisture content of 8%–9%. This may typically be effected by heating to elevated temperature less than 300° F. Preferably the temperature of drying will be about 225° F. to 275° F., say 250° F. and the time of drying will be about 20 minutes–5 minutes, preferably 10 minutes. Drying of the particles may be effected at room temperature, but under these conditions the time of drying might be as long as 18 hours. The palatability of the product may be undesirably low if the drying is effected at temperatures about or above 300° F.

The so-dried particles may be cooled to ambient temperatures as by contact with a stream of cool air for a period of 3 to 5 minutes.

Preparation of the novel gravy-forming product of this invention may be accomplished preferably when the so-dried particles are cool. Although the temperature of these particles may vary, as hereinafter noted, they will preferably be at about ambient temperature, preferably at 60° F.–80° F.

The preferred fats which may be employed in practice of this invention include those which are solid at ambient temperature, e.g., at 60° F.–80° F., and which may be rendered fluid when warm, e.g., at temperature of 110° F.–140° F. The preferred fat which may be employed may be prime grade tallow which may be stabilized against rancidity if desired. The fat is preferably employed in amount of 1.5%–4% by weight of the particles.

Coating of the particles with the fat may preferably be

effected by spraying the fat in the form of a fine mist or spray, together with air if desired. During the coating the individual particles may be kept in motion. Coating can be done, e.g., in a rotating drum which continually exposes fresh particle surfaces to the fat.

It is preferred to coat the particles, preferably at the same time as the fat is coated thereon, with a flavoring component, preferably a liquid meat extract. This may be sprayed onto the particles at the same time as the fat is sprayed. Commonly the amount of flavoring component may be .25% to 5%, say 0.5% of the weight of the particles. The liquid meat extract may be dispersed in the fat prior to its being sprayed, or alternatively may be sprayed on the product subsequent to spraying the fat.

During the coating, the relative temperature of the farinaceous particles and the fat are controlled so that: (*a*) the fat is sufficiently fluid to be coated onto the particles and to form thereon a more-or-less continuous coating; (*b*) the fat penetrates only slightly into the interior of the particle and preferably forms a coating on the surface thereof; and (*c*) the fat solidifies substantially entirely as it hits the particle of food.

Because of the porous nature of the particles, the sprayed fat will pentrate the outer surface thereof, but because of the controlled temperatures of the particles and the fat, the latter will solidfy before it has penetrated more than the layer immediately adjacent to the surface. Thus the interior of the particle will preferably be free of fat while the exterior portion may contain a solid layer thereon.

Preferably immediately after the fat has been sprayed onto the particles, they are contacted with a dry gravy-former, although the gravy-former may also be dispersed in the fat being sprayed in a hydrated or dry state or applied in either such form, i.e., as a liquid or a powder, to the expanded product prior to application of the fat thereon. The preferred gravy-former may be gums. Typical of the gravy-formers which may be employed are gum guar (in amounts of 1%–1.5%), gum tragacanth (in amounts of 0.75%–4%), gum karaya (in amounts of 0.75%–2%), locust bean gum (in amounts of 1–5%), pregelatinized corn flour (in amounts of, e.g., 0.75%), pregelatinized starch (in amounts up to 5%), precooked potato flour (in amounts up to 5%), hydrocolloids such as alginates (in amounts up to 2%) and carrageenins (in the levels of 0.75–2.0%), polymerized alkylene oxides such as ethylene oxide (at levels of 0.025%–0.1%).

When pregelatinized starch is employed, it is preferred to use it in combination with carboxy methyl cellulose, preferably 0.75% of each.

The gravy-former provides a coating on the particles which prevents them from adhering to each other whereby the body of particles may be free flowing. The gravy-former should be of a type which hydrates rapidly and is capable of readily thickening the liquid to be absorbed by the product. All of the foregoing listed gravy formers are capable of performing this function in that they thicken to a desired viscosity in a period less than 5 minutes and thereby permit the thickened gravy produced upon liquid addition to coat the surface of the expanded dog food in such a manner as achieves controlled rehydration thereof and forestalls premature softening of the expanded porous animal food. In this connection also the fat, by virtue of its liquefiable condition at the anticipated temperatures of use in producing a gravy through the addition of an aqueous liquid, serves as a carrier for the dry gravy-making ingredients or thickeners listed above.

It has been found that of the various dry gravy-forming agents of use, the carboxy methyl cellulose is a preferred agent being water soluble and capable of assuming the required viscosity to offer a truly "instant" character to the sauce or gravy-producing ingredient.

It is a particular feature of this product that it may be wet with 1 to 3, say 2 parts by weight of liquor (equivalent to .5 to 1.5, say 0.66 part by volume), preferably water, at, e.g., 100° F. to 140° F., say 120° F., to form a gravy-containing mixture, although liquids at temperatures as low as 50–60° F. will form the gravy albeit more slowly. Other liquors which may be employed include milk soups, consommes, etc.

After addition of the preferably warm liquor, the mixture may be stirred. As it is stirred, the gravy is formed and the particles or chunks of farinaceous material retain their integrity during and after the formation of the gravy.

It is a particular feature of this novel product that when rehydrated, the individual particles retain their shape and do not become sticky or gummy. This high degree of particle integrity contributes greatly to the high palatability of the product. It is also a feature of the product that the liquid adsorption is rapid even at room temperature, i.e., even when the product is contacted with cold tap water.

In accordance with a specific embodiment of this invention, a mixture of the following components was employed as charge.

Ingredients:	Percent
Hominy feed	37
Wheat grey shorts	13
Corn germ meal	9.6
Solvent soya	16
52% meat meal	17
Wheat germ meal	3
Dried milk	0.9
Beet pulp	1.7
Fish scrap	.7
Brewer's yeast	0.5
Salt	0.5
Vitamins and minerals	0.1

In this specific example, 100 parts by weight of those charge materials containing 9% water was placed within a Beale tube, wherein it was maintained for two minutes at 212° F. During this time, 10 parts of 70° F. water were added and steam was directly passed to the mixture.

The temperature was maintained both by the steam passed directly to the mixture as well as by steam in the jacket. During the entire two minutes, the mixture was vigorously agitated. The moisture content of the material at the end of the two minutes was 30%.

The mixture was then placed in a Wenger extruder which extruded the so-treated material at high pressure. The product, which came out of the extrusion die, was in the form of a rope having a density of 16 lbs. per cubic foot. This material looked similar to angel food cake and had more-or-less oriented cells or air pockets. It was cut to desired length of about ¾". The cut rope was then maintained for 10 minutes in the traveling bed drier through which hot air at 250° F. was passed. The dried particles were cooled by ambient air during a period of 3 minutes to give a product having a density of 18–20 lbs./ft.³.

The so-prepared particles at temperature of about 70° F. were placed in a rotating drum. Prime grade beef tallow at 125° F., in amount of about 4 pounds per 100 pounds of particles, was sprayed onto the particles as the drum rotated. Spraying was effected with a pump operating at 100 p.s.i.g. through a fine nozzle. Simultaneously and separately, a meat flavor stock (which had been prepared by heating beef in water for 2–3 hours) was sprayed onto the particles in amount of about 0.6 pound per 100 pounds of particles.

When these had been added to the particles, a dry gravy-forming mixture which had been prepared by mixing about one pound of precooked potato flour and two pounds of guar gum, was blown onto the particles. When the mixture was homogeneous, mixing was stopped.

One part by weight of this product was added to two parts by weight of warm (110° F.) water. The mixture was stirred for about 30 seconds to distribute the water throughout the mass. Gravy formed almost instantly. The mixture was not mushy or soggy; each of the in-

dividual particles of food retained its discreteness. The gravy-containing product was found to be very highly palatable when given to dogs.

The present application is filed as a continuation-in-part of our prior application Serial No. 3,516, filed January 20, 1960, and entitled, "Novel Farinaceous Animal Food," now abandoned.

While the present invention has been described with particular reference to specific examples, it will be apparent to those skilled in the art that various changes and modifications may be made thereto.

What is claimed is:

1. The method of preparing a particulate dry animal food capable of forming a gravy-containing mixture on addition of aqueous liquid while retaining its individual particulate state without becoming mushy and sticky, said method comprising the steps of

forming a farinaceous mixture including farinaceous starch-containing grain material and proteinaceous material to balance said mixture nutritionally, the amount of said grain material being between 30% and 65% and the amount of said proteinaceous material being between 25% and 40% by weight of said farinaceous mixture;

gelatinizing said farinaceous mixture by moistening and heating it to cause starch granules in said mixture to swell with accompanying loss of bi-refringence;

subjecting the gelatinized mixture to mechanical working and expansion by extruding it from a confined zone of high pressure and temperature substantially above 212° F. to a zone of lower pressure, thereby forming said mixture into an expanded porous structure of lower density and reducing its moisture content;

drying said lower density product to a stable moisture content; and

cooling the dried product and coating its surface with a fat and dry gravy-forming and thickening material capable of rapid reconstitution in water, the relative temperature of said dried product and coating fat being such that the fat forms a surface coating when applied to said dried product;

said coating maintaining said material on said surface available for rapid hydration by added aqueous liquid and also retarding hydration of the expanded porous structure of the product by said liquid during reconstitution of said gravy.

2. The method of preparing a particulate dry animal food capable of forming a gravy-containing mixture on addition of aqueous liquid while retaining its individual particulate state without becoming mushy and sticky, said method comprising the steps of

forming a farinaceous mixture including between 30% and 65% farinaceous starch-containing grain material and between 25% and 40% proteinaceous material to balance said mixture nutritionally;

gelatinizing said farinaceous mixture by moistening and heating it and contacting steam therewith to cause starch granules in said mixture to swell with accompanying loss of bi-refringence;

subjecting the gelatinized mixture to mechanical working and expansion by extruding it from a confined zone of high pressure and temperature substantially above 212° F. to a zone of lower pressure, thereby forming said mixture into an expanded porous structure of lower density and reducing its moisture content;

drying said lower density product to a stable moisture content; and

cooling the dried product and coating the cooled product with a liquid fat which is normally solid at ambient temperature, liquid meat extract, and dry gravy-forming and thickening material capable of rapid reconstitution in water;

the relative temperatures of said cooled product and said fat being such that said fat solidifies rapidly on the surface of said product to form a coating thereon which maintains said extract and said material on said surface available for rapid hydration by added aqueous liquid and also retards hydration of the expanded porous structure by said liquid during reconstitution of said gravy.

3. The method of preparing a particulate dry animal food capable of forming a gravy-containing food on addition of aqueous liquid while retaining its individual particulate state without becoming mushy and sticky, said method comprising the steps of

forming a farinaceous mixture including between 30% and 65% farinaceous starch-containing grain material and between 25% and 40% proteinaceous material to balance said mixture nutritionally;

gelatinizing said farinaceous mixture by moistening and heating it to cause starch granules in said mixture to swell with accompanying loss of bi-refringence;

subjecting the gelatinized mixture to mechanical working and expansion by extruding the heated mixture from a confined zone of superatomspheric pressure and temperature substantially above 212° F. to a zone of atmospheric pressure, thereby forming said mixture into an expanded porous structure of lower density and reducing its moisture content;

drying said lower density product at a temperature less than 300° F. to a stable moisture content;

cooling the dried product and coating the cooled product with 1.5–4.0% by weight of fluid fat which is solid at ambient temperature and is capable of being rendered fluid at a temperature of 110° F. and with 0.25–5% by weight of liquid meat extract;

the relative temperatures of said cooled product and said fat being such that said fat solidifies rapidly on the surface of said product to form a coating thereon which retards hydration of the expanded porous structure of the product;

and applying to the outer surfaces of said fat coating a dry gravy-forming and thickening material capable of rapid reconstitution on addition of aqueous liquid to said product.

4. The method of preparing a particulate dry animal food capable of forming a gravy-containing food on addition of aqueous liquid while retaining its individual particulate state without becoming mushy and sticky, said method comprising the steps of

forming a farinaceous mixture including farinaceous starch-containing grain material and proteinaceous material to balance said mixture nutritionally, the weight ratio of farinaceous grain material to proteinaceous material ranging between 2.5:1 and 0.8:1 and the amount of farinaceous grain material being between 30% and 65% and of the proteinaceous material between 25% and 40% by weight of said farinaceous mixture;

gelatinizing said farinaceous mixture by moistening and heating it to cause starch granules in said mixture to swell with corresponding loss of bi-refringence;

subjecting the gelatinized mixture to mechanical working and expansion by extruding it from a confined zone of high pressure and temperature substantially above 212° F. to a zone of lower pressure, thereby forming said mixture into an expanded porous structure of lower density and reducing its moisture content by 2–5% to a level of about 23–29%;

drying said lower density product at a temperature less than 300° F. to a stable moisture content;

cooling the dried product and coating the cooled product with (a) 1.5–4.0% by weight of fluid fat which is solid at temperatures of 60°–80° F. and is capable of being rendered fluid at a temperature

of 110° F. and (*b*) 0.25–5.0% by weight of dry gravy-forming and thickening material capable of rapid reconstitution in water;

the relative temperatures of said fat and of said cooled product being such that said fat solidifies rapidly on the surface of said product and forms a coating thereon which maintains said material on said surface available for rapid hydration by added aqueous liquid and also retards hydration of the expanded porous structure of the product by said liquid during reconstitution of said gravy.

5. Method according to claim 1, wherein 0.25–5% liquefied meat extract by weight of the dried product is coated on the dried product with the fat and dry gravy-forming agent.

6. Method according to claim 1, wherein the fat coating is applied by spraying and the product being coated is kept in motion during the coating process to continually expose fresh product surfaces to the fat.

7. Method according to claim 5, wherein the liquid meat extract is sprayed onto the product at the same time as the fat is sprayed, the product being at ambient temperature.

8. Method according to claim 7, wherein the gravy-forming agent is applied as a dry powder after the fat has been sprayed onto the dried product.

9. Method according to claim 8, wherein said lower density product is dried at a temperature between 225°–275° F. for a period ranging from 20 to 5 minutes prior to contacting it with liquefied fat.

10. Method according to claim 9, wherein the gravy-forming agent contains a water soluble cellulose derivative.

11. Method according to claim 10, wherein the cellulose derivative is carboxy methyl cellulose.

12. A readily hydratable animal food particularly characterized by its high water adsorptivity, rapid rate of adsorption, ability to retain its particulate shape on wetting and ability to form a gravy-containing mixture on addition of aqueous liquid which comprises a particulate mass of a gelatinized expanded farinaceous material, a layer of fat solid at ambient temperature in the range of 60° F. to 80° F. but liquefiable upon the addition of warm aqueous liquid to form a gravy and a quantity of dry gravy-forming agent on said layer of fat, said product being produced in accordance with the method of claim 1.

13. A dog food according to claim 12, wherein the dry gravy-forming agent is carboxy methyl cellulose.

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